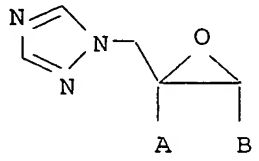
Preparation 1,2,4-triazolylmethyloxiranes

Abstract

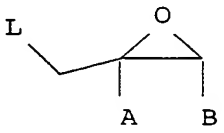
The present invention relates to a process for the preparation of 1,2,4-triazol-1-ylmethyloxiranes of the formula I



I

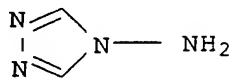
in which A and B are identical or different and, independently of one another, are C_1-C_4-alkyl, phenyl-C_1-C_2-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, tetrahydropyranyl, tetrahydrofuranyl, dioxanyl or phenyl, where the phenyl radical can carry one to three substituents chosen from the group: halogen, nitro, C_1-C_4-alkyl, C_1-C_4-alkyloxy, phenoxy, amino, C_1-C_2-haloalkyl or phenylsulfonyl, which comprises reacting

a) an oxirane of the formula II

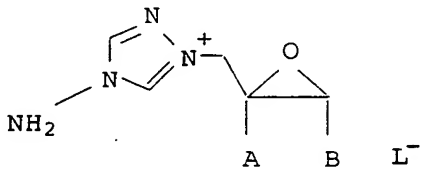


II

in which A and B have the meanings given above and L is a nucleophilically substitutable leaving group, with 4-amino-1,2,4-triazole of the formula III



III



IV

to give 4-amino-1,2,4-triazolium salts of the formula IV and

b) deaminating the 4-amino-1,2,4-triazolium salts IV with alkali metal nitrites and acid or organic nitrites to give 1,2,4-triazol-1-ylmethyloxiranes of the formula I,

and to 4-aminotriazolium salts of the formula IV as intermediates.